Day 7 Notes

Wednesday, December 2, 2015

8:03 PM

Precalculus Section 10.1 Notes - Day 1 Basic Probability

How Much Do You Remember??

Find the probability of:

1. Tossing a "head" on a single toss of a fair coin.

2. Tossing two "heads" ip a row on two tosses of a fair coin.

3. Drawing a queen from a standard deck of 52 playing cards.

Name: Period:

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4. Rolling a sum of 4 on a single roll of two, fair, sixsided dice.

Guessing correctly all 6 numbers is a lottery with 46 numbered balls?

Probability Vocabulary {Key Terms to Know}

Sample Space: All possible outcomes

Probability of an event:

desired outcomes Sample Space.

Probability functions and distributions:

Multiplication Principle of Probability:

Sample space

| Event "B" w/ Palo Y | Palo that A and B = X+4

1. Kate loves Jelly Beans, except for black licorice! The table below illustrates the overall flavor proportions in a particular Jelly Bean company's mix.

				•	
Flavor	Green	Strawberry	Blue	Purple	Black
	Apple	Red	Raspberry	Grape	Licorice
Proportion	0.25	0.3	0.2	0.1	0.15

a. Is this a valid probability distribution? Why or why not?

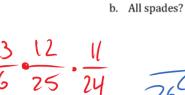
b. If Kate picks a Jelly Bean at random, what is the probability that it is:

Neither Red nor Purple?

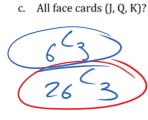
Not black licorice?

• Green Apple or Grape?

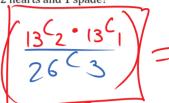
2. In Kevin Lewis' version of Three Card Poker, he uses only 26 cards - 13 black Spades and 13 red Hearts. In a given three card hand that is dealt, what is the probability that the hand consists of:

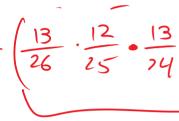






2^C3 = 0





Permutations and combinations practice:

- 1. Which of the following lotteries would you rather play? Why?
 - a. You must correctly select 6 numbers, each of which is a different integer from 0 to 29. The order in which you select the numbers is not important.
 - b. You must correctly select 4 numbers, each of which is a different integer from 0 to 29. The order in which you select the numbers is important.
- 2. 24 students in Precalculus are competing in a Unit Circle Speed contest. In how many ways can students be recognized for finishing first, second, and third? (Assume no ties.)